VZ COMPU200/300

Febuary'86 M.Novakovic $1.00

Hello again members!,

Welcome to the third issue of VZCOMPU200/300 newsletter. I thing I must point out is that I have upgraded to the VZ-300. I do not have much to say about it as the VZ-200 and VZ-300 are 99.9% compatible. I'm impressed with the keyboard.

The Video Technology VZ200

MACHINE LANGUAGE TECHNICAL MANUAL

About incompatibility, the chapter "Reserving Space for Machine Language" methods do not work on the VZ-300. Method 2 and 1 are the worst of the 3 methods. The 2 methods make the computer crash! Method 3 is OK, but I don't think it does the job of reserving machine L.space .

Software to come - I will be producing educational software for children. Programs hopefully coming out will be-Perimeter/Area Tutorial, Missile Launcher, Australia, Grade 8 Graphics and others.

Electronic Projects - This issue has a project which lets the modern doorbell be computer controlled. I hope you can understand it.

IN FUTURE, YOU CAN ONLY CALL ME ON PHONE ON THE WEEKENDS AS I WILL BE BUSY ON WEEKDAYS.

NEW SOFTWARE
Chopper Rescue- DSE
Statement- USOFTWARE
Blackjack- USOFTWARE
Trivial Quiz- USOFTWARE
Galactic Empire- USOFTWARE

Sorry about the last issue being faint in reading contrast. Michael

Cherio for now...

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KEYWORDS TECHNICAL MANUAL
SOFTWARE, ASSEMBLY, ML ROUTINE
VZMON80, EDITOR ASSEMBLER

This is the last of a 2 part article about ML Programming with a VZ-200/300. It gives details about ML books, software and includes ML routines..

VZ Technical Manual-This manual is quite handy. for assembly ML routines. It has about 20 pages that include assembly ROM routines, an extra 4 pages giving a little explaination on ML and some other pages with hints such as reserving space for ML programming. Available from DSE..

Software-There are a few software packages that can be of great help to ML programmers. Two examples are "VZMon80":LYSCo and "Editor Assembler":DSE. The Mon80 software is a general utility which has a useful feature of executing a ML routine. Other obtions include-view data, save a block of mem. etc. The Editor Assembler software lets you type in a assembly ML routine, save it to tape/disk and RUN it later. The good thing about it is that you can type it with no major troubles as you will find without it...

.... ML ROUTINES ....

HERE ARE SOME INTERESTING ROUTINES IN MACHINE LANGUAGE. THE "HI-RES PIXEL" ROUTINE SHOWS A PIXEL IN A PARTICULAR COLOUR. THE UNDERLINED PIECE OF DATA CAN BE CHANGED TO ANY NUMBER BETWEEN 0 AND 255 FOR A COLOUR. THE "COLOUR ENABLE" ROUTINE CHANGES THE BACKGROUND COLOUR TO ORANGE. BUT TO GET THIS TYPE RUN OVER AND OVER AGAIN...

HI-RES PIXEL
by M Novakovic

```
 5 MODE(1)
10 FORL=-28687TO-28674
20 READD:POKEL,D
30 NEXT
40 DATA33,0,112,17,2,121,54,255,1,
  140,237,176,201,4,54
50 POKE30862,241:POKE30863,143:X=USR(0)
60 FORW=1TO1000:NEXT
RUN   <RETURN>
```

COLOR ENABLE
by M. Novakovic

```
10 FORL=-28688TO-28675
20 READD:POKEL,D
30 NEXT
40 DATA33,1,0,65,76,112,17,
  1,43,255,255,237,176,201
50 POKE30862,241:POKE30863,
  143:X=USR(0)
RUN   <RETURN>
```

The routines will work on the VZ-200 because they were originally made on it. It will be compatible with the VZ-300

THE END

WHY IS ML SO FAST?

Ever saw a ML colour routine that shows a colour/s. You notice the screen, the whole screen changing one colour. The computer has made it probably 100 times faster then BASIC. Tried an BASIC routine to shows a colour, the squares are seen changing the colour one by one. But the ML routine does this also, but remember the speed (100 times than BASIC).

Assembler

Assembler is a part of the ML language. T do this, an EDITOR ASSEMBLER is needed to handle your assembler routine. The routin is exactly the same as the above routines but in a different version. If a Editor Assembler monitor unit was used, the POKEs from DATA routines would look like a Assembler routine, to show you what it looks like, here are a couple of assemble program lines-

```
0010 ;ASSEMBLER
0011    LD  (7E2B),A
0012    RET
```

The CPU might take your routine as say, 7 bytes long! The shorter the routine the faster it will run.

.... DOOR CHIMES ....

By John D'Alton

```
10 C=0:C1=0
500 REM
510 CLS
515 PRINT"IN OPERATION"
520 'IFC=5000THENC=0
521 A=(INP(46)AND31)
522 C=C+1:REM NOT USED >>>IFC=5000THENSOUND20,2
530 IFA=29THEN1000:REM DOWN PHONE
531 IFA=23THEN12000:REM DOOR CHIME
560 K$=INKEY$:I$=INKEY$:IFI$=""THEN570
561 IFI$="Z"THENGOSUB2000
570 GOTO520
1000 REM
1020 FORS=10TO30
1[illegible] 0 SOUNDS,5
1040 NEXTS
1080 GOTO500
2000 REM TEST Z
2010 SOUND20,3;10,3:RETURN
12000 REM TUNE SELECTION
12020 IFC1=0THEN12100
12022 IFC1=1THEN12200
12024 IFC1=2THEN12300
12025 IFC1=3THEN13000
12090 REM BOTANY BAY
12100 SOUND7,1;9,1;11,2;14,2;14,2;9,2;12,2;12,2;11,1;9,1;7,5
12102 SOUND0,1;14,2;11,2;14,2;19,2;12,2;16,2;19,2;14,6;0,1
12104 SOUND14,2;19,2;18,2;19,2;21,2;19,2;16,2;14,1;11,1;7,5;0,1
12106 SOUND7,1;9,1;11,2;14,2;14,2;9,2;12,2;11,2;7,6
12110 C1=1:GOTO500
12200 REM KANGAROO
12250 SOUND4,4;9,2;13,4;11,2;9,4;6,6;11,6;4,4;8,2;11,4;14,2
12252 SOUND18,4;16,8;0,1;13,4;16,2;13,4;11,2;9,4;6,6;11,6
1[illegible]54 SOUND4,4;8,2;11,4;9,2;8,4;9,4;16,2;16,1;16,2;16,1;16,4
12256 SOUND9,7
12260 C1=2:GOTO500
12300 REM ADVANCE AUSTRALIA
12350 SOUND11,4;16,4;11,4;8,4;11,4;16,5;16,2;16,4;20,4;18,4
12352 SOUND16,4;15,4;16,4;18,8;11,4;16,4;11,4;8,4;4,4;11,5
12354 SOUND11,2;11,4;20,4;18,4;16,4;15,4;13,4;11,8;11,4;13,5
12356 SOUND15,2;16,4;13,4;11,5;8,2;8,4;11,4;13,4;16,4;21,4;20,4
12358 SOUND18,8;11,4;13,5;15,2;16,4;13,4;11,5;16,2;16,4;18,4
12360 SOUND20,5;16,2;18,5;15,2;16,8;20,4;21,4;20,4;18,4;16,4
12362 SOUND15,4;13,4;11,4;16,4;20,5;16,2;18,5;15,2;16,8
12370 C1=3:GOTO500
13000 REM CHRISTMAS. SILENT NIGHT
13005 SOUND9,5;11,2;9,5;6,3;0,1;9,5;11,2;9,5;6,3;0,2
13006 SOUND16,4;0,1;16,4;13,4;0,2;14,4;0,1;14,4;9,4;0,1
13007 SOUND11,4;0,1;11,4;14,4;0,1;13,4;11,4;9,4;11,4;9,4;6,4;0,2
13008 SOUND11,4;0,1;11,4;14,4;0,1;13,4;11,4;9,4;11,4;9,4;6,4;0,4
13009 SOUND16,5;16,3;19,5;16,2;13,3;14,6;18,5;0,2
13010 SOUND14,4;9,4;6,4;9,4;0,1;7,4;4,4;2,5
1[illegible]15 C1=0:GOTO500
```

The End

For use with curcuit Door Chime project for doorbell. Requires joysticks. The curcuit should be easy to build.

TURN right joystick stick right to get tunes for the doorbell. Press key 'Z' to get test tune, or right stick down for Down Phone routine. 4 tunes.

Abbreviated Commands by BOB KITCH

A number of abbreviated forms of BASIC commands will run on the VZ's. These shortened forms are not fully documented in the Manuals accompanying the machines; so I have set out a few below. Try them as they save a little space on the 32-character long line. They should be used with caution as they contribute little to program readability!

FULL COMMAND	EQUIVELANT ABBREVIATED COMMAND
10 REM A NON-EXECUTABLE LINE	10 ' A NON-EX.....
20 PRINT"SEE THIS"	20 ?"AND THIS"
30 SOUND 1,3:SOUND 2,5	30 SOUND 1,3;2,5
40 if A=1 THEN GO TO 999	40 IF A=1 GO TO 999
	...or...
	40 IF A=1 , 999
50 PRINT"ENTER A VALUE":INPUT A	50 INPUT"ENTER A VALUE";A

Also if the screen is formatted and it is wished to input a value at a certain location on the screen thus use-

```
20 PRINT @ 488," ";:INPUT A
```

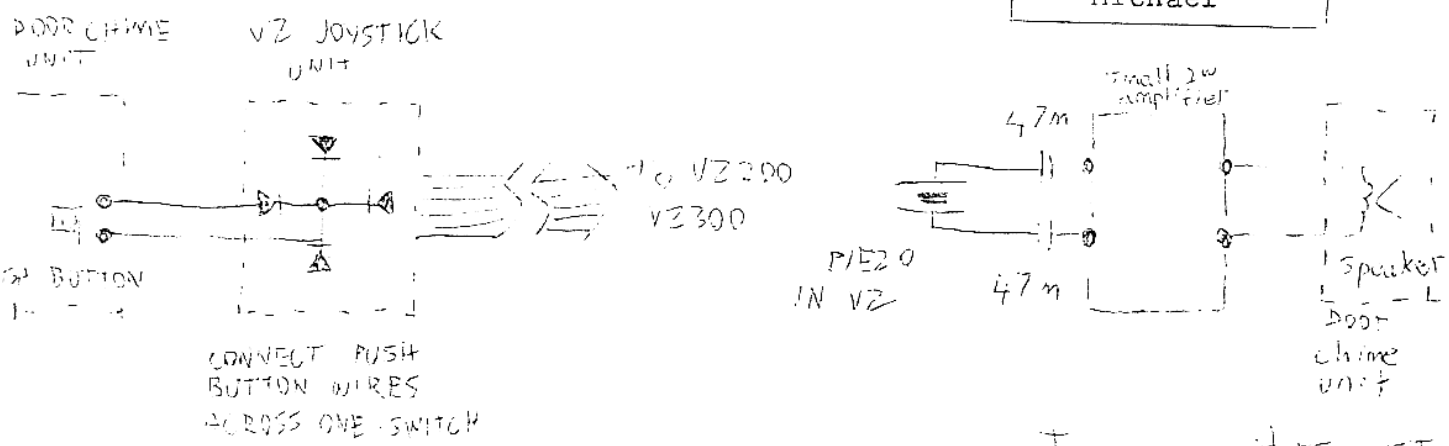
Note that the semi-colon (;) after the PRINT@ statement does not insert a linefeed.

CURCUIT FOR DOOR CHIMES PROGRAM

by John D'Alton
(07) 371 3707

HELP

Where can you get VZ 64K RAM expansion modules?
Michael



Two capacitors must be used as VZ Piezo is above ground potential.

DID YOU KNOW?
The first ever VZ program to appear in a magazine was "Missile Command" (APC, Dec 83)

¼ COLOUR SCREEN

This interesting machine language program shows a colour on ¼ of the top long line. To change colours line 40 with data 85 can be changed to make another colour. It is underlined.

```
10 FORZ=0TO27
20 READD:POKE32000+Z,D
30 NEXT
40 DATA33,0,112,17,1,112,255,7,
54,85,237,176,201,0,33,43,114,11
45 DATA5,98,34,255,43,237,65,23,1,
2,148,8
50 POKE30862,0:POKE30863,125
60 X=USR(0)
```

HI RES PIXEL

This machine language routine shows a pixel in a colour. Data 255 in line 40 can be changed to any no. to make a different colour....

```
 5 MODE(1)
10 FORL=-28687TO-28674
20 READD:POKEL,D
30 NEXT
40 DATA33,0,112,17,2,121,54,
255,1,140,237,176,201,4,54
50 POKE30862,241:POKE30863,143:X=USR(0)
60 FORW=1TO1000:NEXT
```

THE VZ ADVERTISER

For Sale

Back issues of VZCOMPU200/300 $1.00

Copies of ML article 50¢

Software should be available soc

AVAILABLE FROM

VZ-200/300 Computer Club,
24 Albert Street, GOODNA,
Qld 4300.

Note - The ML article for 50¢ I've chosen to replace the M.L. article in #3 newsletter.
Michael